abcam

Product datasheet

Anti-Catalase antibody - Peroxisome Marker ab52477

KO VALIDATED

★★★★★ **8 Abreviews**   **36 References**   6 Images

Overview

Product name	Anti-Catalase antibody - Peroxisome Marker
Description	Rabbit polyclonal to Catalase - Peroxisome Marker
Host species	Rabbit
Specificity	This antibody reacts with Catalase.
	Replenishment batches of our polyclonal antibody, ab52477 are tested in WB. Previous batches were additionally validated in ICC, IHC-P and IP. These applications are still expected to work and are covered by our Abpromise guarantee. You may also be interested in our alternative recombinant antibody, **ab76110**.
Tested applications	**Suitable for:** IP, ICC, WB, IHC-P **Unsuitable for:** Flow Cyt
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide corresponding to Human Catalase aa 50-150 (N terminal). (Peptide available as **ab215573**)
Positive control	WB: TF1, Rat liver tissue, WT HAP1, HeLa, Jurkat, U251, U2OS, 9L, PC12 and RIE-1 whole cell lysates. IHC-P: Human liver tissue section.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.
	If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide

Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA

Purity	Protein A purified
Purification notes	Affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee   Our **Abpromise guarantee** covers the use of ab52477 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
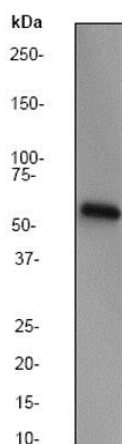
Application	Abreviews	Notes
IP		Use at an assay dependent concentration.
ICC		Use at an assay dependent concentration.
WB	★ ★ ★ ★ ★ **(8)**	1/1000. Detects a band of approximately 60 kDa (predicted molecular weight: 60 kDa).
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

Application notes   Is unsuitable for Flow Cyt.

Target

Function	Occurs in almost all aerobically respiring organisms and serves to protect cells from the toxic effects of hydrogen peroxide. Promotes growth of cells including T-cells, B-cells, myeloid leukemia cells, melanoma cells, mastocytoma cells and normal and transformed fibroblast cells.
Involvement in disease	Defects in CAT are the cause of acatalasia (ACATLAS) [MIM:115500]; also known as acatalasemia. This disease is characterized by absence of catalase activity in red cells and is often associated with ulcerating oral lesions.
Sequence similarities	Belongs to the catalase family.
Post-translational modifications	The N-terminus is blocked.
Cellular localization	Peroxisome.

Images

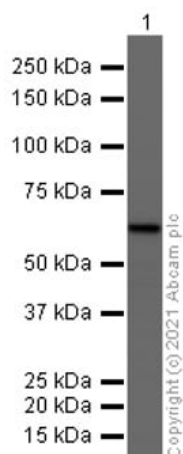Western blot - Anti-Catalase antibody - Peroxisome Marker (ab52477)

Anti-Catalase antibody - Peroxisome Marker (ab52477) at 1/1000 dilution + TF1 lysate at 10 µg

Secondary

Goat anti-rabbit HRP labeled at 1/2000 dilution

Predicted band size: 60 kDa
Observed band size: 60 kDa

Western blot - Anti-Catalase antibody - Peroxisome Marker (ab52477)

Anti-Catalase antibody - Peroxisome Marker (ab52477) at 1 µg/ml + Rat liver tissue lysate at 10 µg

Secondary

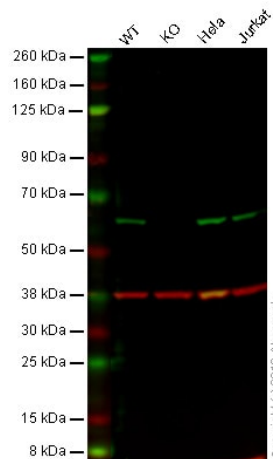Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/50000 dilution

Predicted band size: 60 kDa
Observed band size: 60 kDa

Exposure time: 30 seconds

Gel type: MOPS

Blocking buffer: 2% BSA

Western blot - Anti-Catalase antibody - Peroxisome
Marker (ab52477)

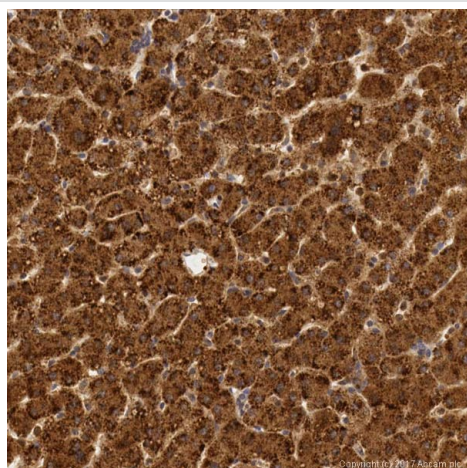**Lane 1:** Wild-type HAP1 cell lysate (20 µg)

Lane 2: Catalase knockout HAP1 cell lysate (20 µg)

Lane 3: HeLa cell lysate (20 µg)

Lane 4: Jurkat cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab52477
observed at 60 kDa. Red - loading control, **ab8245**, observed at
37 kDa.

ab52477 was shown to specifically react with Catalase when
Catalase knockout samples were used. Wild-type and Catalase
knockout samples were subjected to SDS-PAGE. ab52477 and
ab8245 (loading control to GAPDH) were diluted at 1/1000 and
1/10,000 respectively and incubated overnight at 4°C. Blots were
developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW)
preadsorbed (**ab216773**) andGoat anti-Mouse IgG H&L (IRDye®
680RD) preadsorbed (**ab216776**) secondary antibodies at
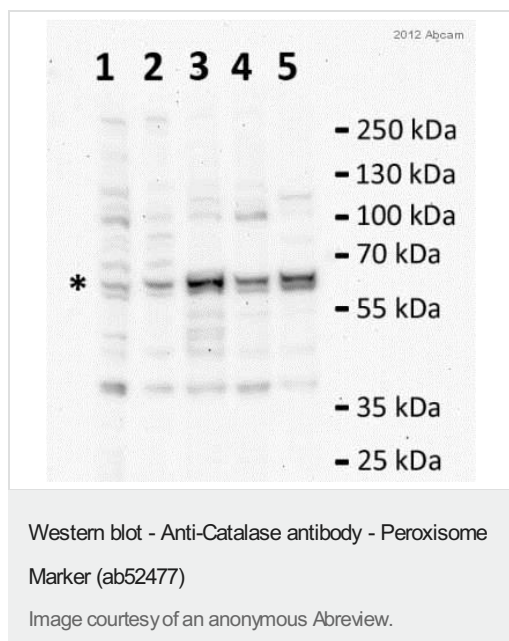1/10000 dilution for 1 hour at room temperature before imaging.

Immunohistochemistry (Formalin/PFA-fixed paraffin-
embedded sections) - Anti-Catalase antibody -
Peroxisome Marker (ab52477)

IHC image of Catalasestaining in a formalin fixed, paraffin
embedded normal human liver tissue section*, performed on a
Leica Bond™ system using the standard protocol F. The section
was pre-treated using heat mediated antigen retrieval with sodium
citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The
section was then incubated with ab52477, 5µg/ml, for 15 mins at
room temperature and detected using an HRP conjugated compact
polymer system. DAB was used as the chromogen. The section
was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated)
customers should optimize variable parameters such as antigen
retrieval conditions, primary antibody concentration and antibody
incubation times.

*Tissue obtained from the Human Research Tissue Bank,
supported by the NIHR Cambridge Biomedical Research Centre

Western blot - Anti-Catalase antibody - Peroxisome Marker (ab52477)

Image courtesy of an anonymous Abreview.

All lanes : Anti-Catalase antibody - Peroxisome Marker (ab52477) at 1 µg/ml

Lane 1 : Whole cell lysate prepared from 293T cells
Lane 2 : Whole cell lysate prepared from HeLa cells
Lane 3 : Whole cell lysate prepared from U251 cells
Lane 4 : Whole cell lysate prepared from Jurkat cells
Lane 5 : Whole cell lysate prepared from U2OS cells
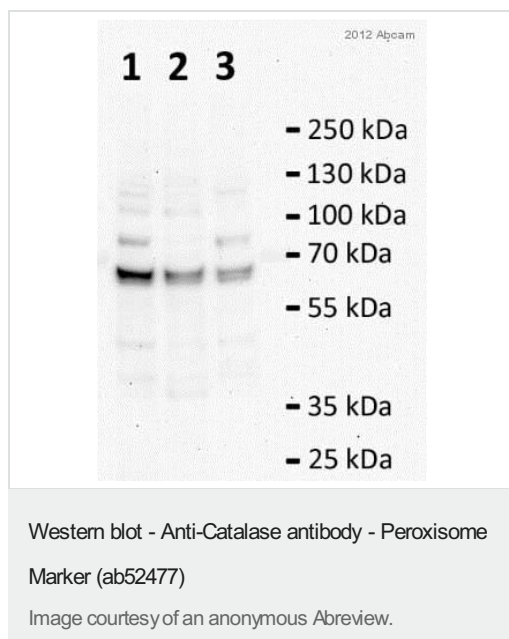
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : HRP conjugated pig anti-rabbit polyclonal at 1/5000 dilution

Developed using the ECL technique.

Predicted band size: 60 kDa
Observed band size: 60 kDa

Exposure time: 5 minutes

Western blot - Anti-Catalase antibody - Peroxisome Marker (ab52477)

Image courtesy of an anonymous Abreview.

All lanes : Anti-Catalase antibody - Peroxisome Marker (ab52477) at 1 µg/ml

Lane 1 : Whole cell lysate prepared from 9L cells
Lane 2 : Whole cell lysate prepared from PC12 cells
Lane 3 : Whole cell lysate prepared from RIE-1 cells

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : HRP conjugated pig anti-rabbit polyclonal at 1/5000 dilution

Developed using the ECL technique.

Predicted band size: 60 kDa
Observed band size: 60 kDa

Exposure time: 5 minutes

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